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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/562,387
Filing Date: May 11, 2006
Appellant(s): TEN BRUGGENKATE, CHRISTIAAN MICHIEL

William McLaughlin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 23, 2011 appealing from the Office action mailed September 8, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

The following is a list of claims that are rejected and pending in the application:

Claims 1, 3-6 and 8-17

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

4,468,200	Munch	8-1984
6,099,312	Alvaro	8-2000
5,954,504	Misch et al.	9-1999
4,722,688	Lonca	2-1988

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 8-10, 12 and 14 rejected under 35 U.S.C. 102(b) as being anticipated by Münch (4,468,200).

Münch teaches an intra-osseous implant for placement in bone of a human body comprising at least one intra-osseous part 3 intended for placement in bone tissue having an apical side 13 and a cervical side 2 and composed of a body friendly material (see abstract), which part is provided on its circumferential surface with a screw thread 8 running in the direction of and ending at the apical end, and a support part present at

the cervical side of the at least one intra-part is provided with multiple grooves 15 extending in longitudinal direction and over the entire length of the intra-osseous part, interrupting the screw thread into multiple interrupted screw thread parts, the multiple interrupted screw thread parts serving as retention elements capable of allowing the placement of the implant in longitudinal direction in the bone tissue but preventing the removal of the implant in opposite longitudinal direction out of the bone (col. 4, ll. 34-35), the retention elements being provided with a profile exhibiting a shallow slope toward the apical side and a steep slope on the cervical side (figs. 1,5). Münch further teaches the depth of the groove is greater than the height of the screw thread (is extends from the screw thread into the body of the implant, figs. 1,3), the implant characterized in that the grooves are present in an equidistant manner in the circumferential surface (fig. 3), the intra-osseous part has a cylindrical or near cylindrical cross-section (fig. 3), the intra-osseous part becomes smaller in the apical direction (fig. 1) and the implant is a dental implant wherein the support part is provided with at least one bevel 11 on its circumferential edge (figs. 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Alvaro (6,099,312).

Münch teaches the invention as substantially claimed and discussed above, however, does not specifically teach the width of the groove varies in the direction of the apical side to the intra-osseous part, the depth of the groove varies in the direction of the apical side of the intra-osseous part and more in particular becomes smaller, the width of the groove widens in the direction of the apical side of the intra-osseous part. 5. Alvaro teaches an implant wherein the width of the groove 6' varies in the direction of the apical side to the intra-osseous part (fig. 4) and becomes smaller in the direction of the apical side (col. 2, ll. 62-66). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the shape of the groove taught by Münch with the shape taught by Alvaro as a matter of obvious design choice, since Alvaro teaches the groove with a varied width (fig. 4) and a constant width (fig. 1) which is also taught by Münch.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Misch et al. 5,954,504 (Misch).

Münch teaches the invention as discussed above, however, does not teach the height of the screw thread varies in the direction of the apical side of the intra-osseous part and more in particular becomes smaller.

Misch teaches the height of the screw thread varies in the direction of the apical side of the intra-osseous part and more in particular becomes smaller as illustrated in fig. 5. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the screw thread taught by Münch with the screw thread becoming smaller as taught by Misch in order to promote growth of new bone tissue.

Claims 11 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Kanomi et al (5,921,774).

Münch teaches the invention as substantially claimed and discussed above, however, does not specifically teach the intra-osseous part has a polygonal cross section, a hexagonal cross section or an octagonal cross section.

Kanomi teaches an implant comprising a polygonal cross section (col. 7, ll. 47-49). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the circular shape of the implant taught by Münch with the polygonal shape taught by Kanomi as a matter of obvious design choice since Kanomi teaches a polygonal shape and a circular shape as taught by Münch. Kanomi does not specifically teach the polygonal cross section is a hexagonal or octagonal cross section; however, it would have been a matter of obvious design choice to choose any known polygon

shape, which includes hexagon and octagon, known in the art for the specific polygonal cross section.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Lonca (4,722,688).

Münch teaches the invention as substantially claimed and discussed above, however, does not specifically teach the support part is positioned under an angle on the intra-osseous part with respect to the direction of the implant.

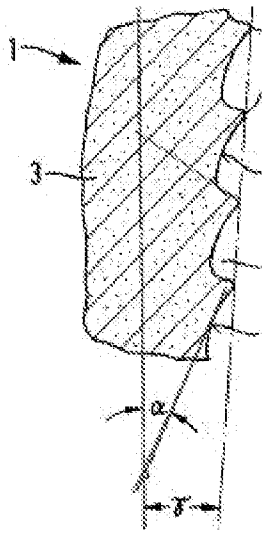
Lonca teaches the support part is positioned under an angle on the intra-osseous part with respect to the direction of the implant as illustrated in figs. 4a-4b (col. 4, ll. 20-23). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the location of the support part taught by Münch with the angled location taught by Lonca in order to provide a prosthetic in desired position preferred by the user.

(10) Response to Argument

Appellant argues that the prior art of Münch does not teach the retention elements allowing placement of the implant in a longitudinal direction into the bone tissue while preventing removal of the implant in the opposite direction out of the bone. Appellant argues that the limitation of inserting the implant in the longitudinal direction is limited to tapping or pushing the screw into the bone. It is noted that on page 3, lines 1-4 that appellant discusses this limitation and further in lines 6-20 discuss how the longitudinal placement is achieved including the retention elements or the remaining

thread parts form a screw thread, so that the implant can be position by means of a rotation action. Therefore, the applicant is not positively claiming that the implant is positioned in the jaw in the longitudinal direction by the method of tapping or pushing. The prior art of Münch teaches an implant with a screw thread that is anchored in the jaw. It is well known in the art that an implant such as the one taught by Münch is inserted in the longitudinal direction of the jaw by rotation of the implant. Further it is well known that the thread prevents removal of the implant in the opposite direction (the direction opposite of the insertion direction). So in this case once the implant is screwed into the jawbone in the longitudinal direction, the thread elements will prevent the implant from being pulled out of the jaw bone. Münch teaches anchoring the implant in the jaw bone (see abstract) therefore it would have been obvious to having ordinary skill in the art at the time of the invention that the interrupted screw thread discussed in detail in the office action prevents removal of the implant in the opposite longitudinal direction.

Appellant further argues that the prior art does not teach the limitation of the thread parts being provided with a profile exhibiting a shallow slope toward the apical side the right side or upper side) and a steep slope on the cervical side the left side or bottom side). However as illustrated below in the annotated figure of the prior art the upper side of the thread part exhibits a steep slope with respect to the longitudinal axis and the cervical side (the underside) exhibits a shallow slope with respect to the longitudinal axis.



Appellant further argues that the interrupted screw thread parts of the prior art as discussed above in detail do not ser as retention elements, however as discussed above in detail, the interrupted screw thread of the prior art is used to anchor the implant in the jawbone, therefore it would have been obvious to one having ordinary skill in the art at the time of the invention the interrupted screw thread elements serve as retention elements, anchoring the implant in the jawbone. Appellant argues that the implant of Münch can be removed by threading in the opposite direction, however, the applicant teaches on page 3, lines 17-19 that the current invention functions the same way. As discussed above in detail the interrupted screw thread is used to anchor the implant in the jaw bone and the interrupted screw thread prevents removal of the implant in the opposite direction, such that the interrupted screw prevents the implant from being pulled out of the bone.

With respect to the appellants arguments directed towards independent claims 4-6, 11-13, and 15-17 that the prior art applied to the claims does not overcome the deficiencies of Münch, it is noted that Münch teaches the invention as substantially

claimed and discussed above therefore the combined references teaches the claimed invention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/HEIDI M EIDE/

Examiner, Art Unit 3732

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/Cris L. Rodriguez/
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